

The NASA aircraft operations program directly supports the Agency mission in aeronautical research and development, space science and applications, space flight, astronaut readiness training, and related activities by providing operational flights in research and development aircraft, program support aircraft, and mission management aircraft.

NASA Aviation Interfaces

Aircraft Industry

Special aviation safety provisions contained in contracts should permit or require exchange of accident information concerning the types of aircraft involved. NASA safety personnel participate in design reviews and inspections during the acquisition phase of aircraft and other aviation equipment.

Department of Transportation

NASA aviation safety has a direct interest in Federal Aviation Administration (FAA) flight services and facilities used by NASA aircraft, including air traffic procedures, enroute, restricted, and unrestricted airspace, and local flying and training areas. NASA and the FAA also cooperate on research and development activities.

Department of Defense (DoD)

NASA utilizes many military airfields and aircraft common to all military services; therefore, close coordination is important. Safety and accident investigation provisions are included in joint agreements with DoD agencies for joint use or loan of aircraft.

Foreign Governments

Because of the diversity and worldwide scope of NASA aviation operations, close communication between NASA aviation personnel and the international aviation community is important.



YOUR PREPAREDNESS FOR AN AUDIT OF NASA AIRCRAFT OPERATIONS MANAGEMENT REQUIREMENTS WITH THESE SAMPLE AUDIT GUIDE QUESTIONS.

MANAGEMENT:

1. Who is your Center's Aviation Safety Officer (ASO)? Are they designated in writing and trained?
2. Who authorizes personnel to operate or fly in NASA aircraft?
3. How long do Mission Management Aircraft (MMA) trip documents remain on file?
4. Does your Aircraft Operations Organization have a dedicated Quality Assurance group?

GENERAL:

1. What are your Center's Aviation Safety policies and procedures?
2. What procedures are required for the Pilot-in-Command (PIC) to accept an aircraft?
3. Do you have a dedicated flight records management system?
4. What does your Pilot Proficiency Program entail?
5. What functions does the Intercenter Aircraft Operations Panel (IAOP) perform?

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NASA SAFETY AND MISSION ASSURANCE REQUIREMENTS

NPR 7900.3

Aircraft Operations Management

Compliance Verification Guide



OFFICE OF SAFETY AND MISSION ASSURANCE

This brochure is intended to be used as a guide only, not as a replacement for the actual policy. To review Aircraft Operations Management (NPR 7900.3) in its entirety, see <http://www.hq.nasa.gov/office/codeq/doctree/texttree.htm>.

MINIMUM AUDIT POINTS FOR NPD 7900.3

Leadership & Management

► NASA Centers

- Establish procedures to ensure all flights of NASA aircraft are properly approved and documented. Approval will be by a supervisory aircraft operations pilot or other appropriate aircraft operations supervisory personnel. An approved process to cover absences of flight approval authorities shall be implemented.
- [Objective Quality Evidence \(OQE\) – Aircraft Flight Procedures and Documentation](#)
- Shall qualify NASA flight crews in accordance with standards set forth in this NPR and individual Center instructions. Records of qualification and flight crew evaluation are required. A review of pilot and crew qualifications shall be made prior to flight assignment to ensure prerequisites for the intended mission are met.
- [OQE – Training Records, Records of Review Prior to Flight Assignment, Quality Process, Quality Records](#)
- Shall establish a comprehensive proficiency program for pilots flying research and program support aircraft. This program should be specific to the assigned mission and reflect an in depth evaluation of pilot proficiency and capability. Includes currency requirements, pilot annual and pilot instrument evaluations, simulations, tests, and reviews.
- [OQE – Pilot Proficiency Program Policies, Records of Evaluations, Tests, Reviews](#)
- Shall annually certify all pilots medically, and shall certify pilots 55 years of age and older every 6 months.
- [OQE – Medical Certification Records](#)
- Establish a Center Mission Management Aircraft (MMA) Maintenance Quality Assurance Program.
- [OQE – MMA Maintenance Quality Assurance Policies](#)

► Center Directors

- Appoint a Center Aviation Safety Officer (ASO).
- [OQE – Letter of Appointment](#)
- Approve MMA requests for use of the Center's assigned aircraft.
- [OQE – Signature on MMA Requests](#)

- Designate a Senior Management official who shall be responsible for approving the use of Agency aircraft for mission management purpose.
- [OQE – Letter of Designation](#)
- Establish airworthiness and safety/flight readiness review procedures to manage the risks associated with flight programs, to ensure safe aircraft operations, and to ensure that flight objectives satisfy programmatic requirements.
- [OQE – Airworthiness and Safety/Flight Readiness Review Procedures](#)

► Lead, Aircraft Management Team (AMT)

- Develops standard, Agency wide maintenance and operating requirements and policies, including minimum training and qualification requirements for aircrew and maintenance personnel.
- [OQE – Agency Maintenance and Operating Policies](#)
- Responsible for coordinating the development of an Agency aviation safety program in accordance with Agency policies.
- [OQE – Agency Aviation Safety Program Policies](#)

► NASA Headquarters AMT approves standardized aircraft operating procedures through the appropriate MMA Operations Subpanels of the Intercenter Aircraft Operations Panel (IAOP).

- [OQE – Signatures on Operating Procedures](#)

► Chief of Aircraft Operations ensures that Quality Assurance Inspectors and other personnel are trained, qualified, and assigned to implement a comprehensive quality assurance program appropriate for Center aircraft operations.

- [OQE – Training Records, Aircraft Quality Assurance Program Policy](#)

► Associate Administrator, Office of Management Systems and Facilities is responsible for Agency policies and other matters related to NASA aircraft management.

- [OQE – NASA Aircraft Management Policies](#)

Core Process

- **Center Directors** provide authorization for personnel to operate or fly in NASA aircraft under their control.
 - [OQE – Signature on Authorization Documents](#)
- **Lead, AMT** maintains a current inventory listing of all NASA-controlled aircraft with their respective assignments and a roster of assigned pilots.

- [OQE – NASA-controlled Aircraft Inventory, Assignment, and Pilot Roster Records](#)

► IAOP

- Establish Intercenter review teams to review all aspects of aircraft operations at NASA Centers, including the implementation of Center procedures.
- [OQE – IAOP Review Team Roster](#)
- Coordinate findings and recommendations of IAOP reviews dealing with institutional management issues with the appropriate institutional Associate Administrator.
- [OQE – IAOP Reviews](#)

► Pilot-in-Command (PIC) shall document records pertaining to NASA-flight activities. Shall include, as a minimum, approval of mission, name, grade, and duty status of all aboard, purpose of the flight, routing and/or flight events, and approximate take-off and landing times.

- [OQE – Flight Activity Records](#)

► Designated Senior Management officials at NASA Headquarters and at NASA Centers ensure that MMA trip documentation is maintained on file for a period of at least 24 months.

- [OQE – MMA Trip Files](#)

Process Check

- **NASA Flight Examiners** shall record flight checks on NASA Form 1615.
 - [OQE – Completed Records of Form 1615](#)
- **PIC**
 - Accepts the aircraft by signing NASA Form 1257, or equivalent DoD aircraft forms, prior to flight.
 - [OQE – Signature on Form 1257 or Equivalent](#)
 - Shall record in the aircraft flight log each mechanical irregularity during the flight.
 - [OQE – Aircraft Flight Logs](#)
- **Center Directors** annually certify the Center's continuing need for MMA and the cost-effectiveness of aircraft operation.
 - [OQE – Internal Review Documentation](#)
- **IAOP** documents reviews in a report that focuses on significant findings and recommendations.
 - [OQE – IAOP Reviews](#)

Intercenter Aircraft Operations Panel (IAOP)

Reviews and recommends requirements, policies, and operations for NASA Centers to improve local policies and procedures on all aircraft operations.